EXECUTIVE SUMMARY ICBM ACCIDENT INVESTIGATION LGM-118A "PEACEKEEPER"

FORCE DEVELOPMENT EVALUATION LAUNCH GT-30PA VANDENBERG AIR FORCE BASE, CALIFORNIA

27 JULY 2001

On 27 July 2001, approximately 0101 Local (L) (0701 Zulu {Z}), an LGM-118A "Peacekeeper" intercontinental ballistic missile (ICBM) designated GT-30PA (GT - "Glory Trip"), suffered a catastrophic failure in flight and subsequently impacted the Pacific Ocean several miles off the coast of Vandenberg Air Force Base (AFB), California (CA). The missile, assigned to the 400th Missile Squadron, 90th Space Wing, Frances E. Warren AFB, Wyoming (WY), was on a routine force development evaluation (FDE) test launch. The missile broke up over the ocean with no associated personal injuries or collateral property damage.

At 0100L, the missile lifted off after a nominal launch sequence. For the first 60 seconds of flight, all systems operated nominally. Over the next two seconds, the missile failed to achieve Stage I/II separation, resulting in excessive Stage II interstage pressure and subcomponent failure. Dynamic forces caused by a deviation from the flight path precipitated activation of the automatic flight termination system and subsequent destruction of the missile.

There is clear and convincing evidence that the primary cause of the mishap was failure to achieve normal Stage I/II separation. The cause of the failure was traced to a portion of the Stage II ordnance train. Evidence shows that the Stage II firing unit properly propagated the ordnance impulse to the Stage II motor igniter and the premature stage separation (PSS) inhibit pressure switches. However, the linear shaped charge (LSC) failed to properly detonate as a result of a malfunction in either the ordnance transmission assembly (OTA) lines, the ordnance transfer block, (OTB) or the LSC. The OTA lines, OTB and LSC are installed during the manufacturing process. Due to the nature of the ordnance transmission system, prelaunch testing of the ordnance beyond the firing unit is not possible (testing would destroy the ordnance).

DISCLAIMER

Under 10 U.S.C. 2254(d), any opinion of the accident investigators as to the cause of, or the factors contributing to, the accident set forth in the accident investigation report may not be considered as evidence in any civil or criminal proceeding arising from an aircraft or missile accident, nor may such information be considered an admission of liability by the United States or by any person referred to in these conclusions or statements.